INTRODUCTION - DESIGNING LAW AND POLICY TOWARDS MANAGING PLASTICS IN A CIRCULAR ECONOMY

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This Special Issue is the outcome of a workshop organised at SOAS University of London in June 2018 by the Environmental Regulatory Research Group at the School of Law, University of Surrey, the Law, Environment and Development Centre (LEDC) at the School of Law, SOAS, the Doctoral School at SOAS and the School of Law, Essex University.

The trigger for this workshop was the fast increasing global focus on plastics and plastic waste as an object of concern in recent years. In a context where the world has produced as much plastic since the beginning of the twenty-first century as in the whole of the twentieth century, warning signs observed by scientists have increasingly led to demands being placed on politicians, multinational enterprises, lawyers and policy makers to come up with initiatives that can address the crisis. It is now recognised that we have reached peak-plastic at a planetary scale.

Reversing the trend of increased plastic use, as well as cleaning up existing plastic pollution from the oceans, waterways and land, is an immense law and policy challenge. It will have an impact on all aspects of the global economy, environment as well as citizens. In recent years, some key generators and managers of plastic waste have taken some action. Initiatives include the European Commission's Strategy for Plastics in a Circular Economy, China's 2017 measures to address plastic management that included the banning of solid waste imports, and the organisation of a plastic-centred World Environment Day in 2018.

Efforts to address the plastic surge in different parts of the world notwithstanding, there is a strong North-South dimension to plastics recently highlighted by the Chinese ban on plastic waste imports. In other parts of the Global South, the issue is not just an environmental one but also one linked to livelihoods.

The legal and regulatory challenges to achieve systemic transformation need to be identified, understood and reimagined to deliver outcomes that can lead to a world, which minimises the use of plastics and ensures that no plastic waste ends up in the environment. The measures that need to be taken include strict environmental regulation for supply-side management of commodities, the production and processing by actors associated with plastics including recycling and banning the disposal of waste either domestically or in other countries.

The workshop and this Special Issue started from the premise that plastic production will not stop in the short term and that there is no obvious substitute for various uses of plastics. One of the ways in which we can address the massive environmental problems caused by plastics is by ensuring that there is as little waste as possible and that the majority of plastics are reused. The focus here is therefore on the extent to which the concept of circular economy might contribute to reducing the problem of plastic waste locally, nationally and globally. As such we do not address all the environmental dimensions linked to plastics and plastic waste.

Given the focus on plastics in a circular economy, the articles in this Special Issue do not consider all the underlying challenges that will also need to be addressed in the future. These include, for instance, the need to reconsider the extent to which certain types of plastics and certain uses of plastics are acceptable in legal regimes governed by the precautionary principle, which is the case for a majority of countries around the world. This transforms some of the questions posed from a circular economy perspective that might put emphasis mostly on a cost-benefit analysis to a question of burden of proof and the extent of potential damage caused by plastics. We could also address the difference between the two as follows: A circular economy perspective views plastics as a resource that can be reused, recycled or recovered. From an environmental protection perspective, plastic is a pollutant that is directly linked to oil, itself one of the main causes of anthropogenic climate change, which constitutes one of the greatest environmental threats faced by humankind.

The articles included in this Special Issue address plastics in a circular economy from multidisciplinary perspectives. They include contributions focusing on the international, regional and national dimensions of plastics and the circular economy. The Special Issue starts with a contextual article by Clift et al., which introduces the nature and history of plastics in the economy and in the environment, distinguishes between different plastics, and identifies those with most toxic production processes. The authors are committed to preventing ill-informed regulatory interventions to tackle the global plastics crisis. They argue that regulatory approaches need to recognise the different types of plastics and ensure that used plastic
products are directed to the appropriate route for re-use, recycling or disposal. Clift et al’s starting point is that plastics are essential to the modern industrial economy and their elimination would be unwise, as well as impossible. Rather, the challenge that we need to meet is the management of plastics to eliminate leakage into the environment, both from designed release (glitter, microbeads) and un-designed release (litter). The authors see the roots to achieving this in Life Cycle Assessment (LCA) and Industrial Ecology. Using these tools they argue that it is possible to determine the points of leakage and the potential for intervention throughout the lifecycle of any plastics. It is also possible to assess the effectiveness of alternatives such as bio-based plastics and biodegradable plastics. Clift et al conclude that the possibility for a wholesale replacement of durables by bio-plastics is not a panacea, or even a realistic prospect, and that there needs to be global cooperation and action to resolve the ongoing problems from plastics.

Steenmans offers a critical examination of extended producer responsibility (EPR), described by the economist Sachs as one of the most significant developments in global environmental policy in the last decade. EPR is where the producer of a product retains responsibility of some form for the product throughout its life cycle, including when it becomes waste. With EPR there are four types of producer responsibility: physical responsibility, economic responsibility, liability, informative responsibility. The article is critical of the restricted scope of EPRs. Steenmans quotes Stahl arguing that overall the concept of responsibility itself is too weak to be effective. Steenmans uses the European Union (EU) as a case study to trace how the concept of EPR is evolving. The importance of EPR for plastic waste has been highlighted in the EU 2015 Circular Economy Action Plan identifying it as a key tool for providing economic incentives to increase recycling and develop more sustainable plastic products. The EPR was first included in the EU 2008 Waste Framework Directive (WFD) but criticisms about costs, scope and definitions led to amendments in 2018 to the definition of EPR and the introduction of general minimum requirements for EPR schemes. Steenmans notes that it is too early to determine the effect of these changes to the EU Directive. The article concludes that however the EPR is designed and implemented it needs to be part of an integrated regulatory approach that is complemented by other mutually supportive laws and policies if a circular economy that can manage plastics sustainably is to be achieved.

Oguge focuses on the extent to which the existing law and policy framework in Kenya can provide a starting point for developing measures to address plastic wastes from a circular economy perspective. He analyses in detail the existing environmental law framework, including that concerning solid waste management and the various other policy instruments that have been put forward since the beginning of the century. He finds that there are strong bases in the existing instruments that could be used as springboard to move beyond the existing ban introduced in 2017 that is narrowly centred on plastic bags used for commercial and household packaging. The arguments developed centre around the legal bases that exist and the economic and environmental benefits that moving towards a circular economy focused on design, production, use and recycling of plastic products would bring to Kenya.

Zaouaq & Zaouaq address the issue of plastic waste in Morocco. They highlight the regulatory measures that have been taken from the local to national levels to address environmental harm and find that the steps taken until now fall short of what is required in view of the magnitude of the problem. Thus, waste segregation at source, collection and recycling remain insufficiently developed. In addition, there is insufficient coordination between the multiple and different actors involved in addressing plastic waste. At the same time, the article confirms that a number of steps have been taken for a number of years at different levels, indicating a relatively early recognition of the scale of the problem. Issues of institutional, administrative and financial capacity nevertheless hamper the achievement of the goals set out. In addition, more needs to be done to reduce the generation of waste, including enforcing the polluter pays principle more effectively.

Lee traces the history of regulatory measures to curb plastic use in Taiwan. He argues that there have been two distinct phases of regulatory measures: first, in the early 2000s and more recently since 2018. In the intervening years, various reasons were publicly given for inaction, including socio-cultural and economic reasons. Lee questions the validity of these reasons
and evaluates the logical gaps in the regulator’s responses. He also brings to light the transnational nature of plastic waste consciousness that is pushing regulatory reform. He argues that the Taiwanese push for regulation has largely been influenced by action in the global North, particularly in Europe. Although the 2018 regulations in Taiwan are much more extensive with its targets and the types of plastics, Lee questions the ability of the regulations enacted to provide the transformative shifts to a circular economy given their top-down, piecemeal nature. He highlights that Taiwan could have looked at examples of plastics regulation in other parts of Asia and Africa to provide lessons in designing its own initiatives, rather than largely being a response to concerns over plastics in Europe. The need to consider heterogeneous alternatives links to the theme of this special issue to draw on lessons from around the globe.

Thomas analyses the role of English personal property law, specifically retention of title (ROT) clauses as a means to achieve circular economy. ROT clauses are a provision in a contract for the sale of goods where the seller retains legal ownership until certain obligations are fulfilled by the buyer. His contribution demonstrates the important role that commercial law has in the day to day transactions over goods that end up as waste and, in turn, the reforms that are necessary towards the designing law and policy in a circular economy. Thomas argues that current circular economy policies and waste regulatory frameworks (primarily in the European context the WFD) rest upon the control of goods, with the act of discarding goods key component of regulation. To minimise the inappropriate disposal of plastics and ensure plastics are captured within the circular economy, Thomas illustrates that ROT clauses provide a mechanism within commercial contracts where control can be retained by a vendor until the goods are properly recycled, reused or disposed of.

Finally, Malcolm argues for the adoption of a radical new holistic approach to regulate the problem of plastic waste and to promote the development of a circular economy in the European Union. This approach focuses on the source of the problem, that is, plastics as the “product”. The current legal framework focuses on specific points during the lifetime of the product or on introducing ad hoc prohibitions. In contrast, this article proposes a new model law dealing horizontally with products (a law for things and of things or codex rerum), which is based on a life cycle approach and incorporates a holistic environment product policy and product impact assessment. This model law would lead to the reduction of plastic waste (as far as possible) and avoid the use and exploitation of virgin resources.